ASHP Best Practices Award

Implementation of an Opioid Stewardship Program at an Academic Medical Center

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Authors of this presentation have the following to disclose concerning possible financial or personal relationships with commercial entities that may have direct or indirect interest in the subject matter of this presentation:

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Introduction

Healthcare Facility

- Large academic medical center associated with the University of Kentucky
- Three hospitals, numerous clinics, and outreach relationships with multiple state institutions
- 1086 licensed beds
- Level 1 Trauma Center, Level IV NICU, Magnet-recognized, NCI Cancer Designation
- Over 42,000 annual discharges
- Over 36,000 annual surgeries
- Over 118,000 emergency department visits
- Nearly 1.8 million annual outpatient visits

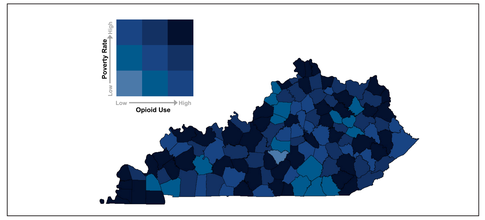
Pharmacy Services

- Decentralized integrated clinical practice model
- Dispenses more than 7.5 million doses annually
- Pharmacist involvement in patient care
  - Inpatient
  - Emergency Department
  - Cancer Center
  - Transitions of Care
  - Ambulatory Clinics
  - Outpatient Pharmacies
  - URAC-accredited Specialty Pharmacy

Introduction *(continued)*

Background

Poverty and Opioid Use Collide in Kentucky



- Impact of the opioid crisis in Central Appalachia and Kentucky is amplified by
  - High rates of chronic pain
  - High rates of poverty
  - Self-contained culture
  - Numerous other factors
- Nearly all patients who misuse opioids (including heroin) begin with prescription drugs
- Up to 80% of patients prescribed opioids have leftover medication

Purpose

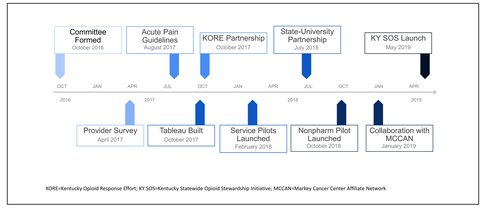
- Provide prescribers with the knowledge, skills, tools, and attitudes to safely use opioids for analgesia

Description of the Program

Program Development

- Pilot of pharmacist-led opioid utilization reduction initiative in trauma population evolved into multidisciplinary Opioid Stewardship Subcommittee of the Pharmacy & Therapeutics Committee
- Office of Opioid Safety established in 2017 with appointment of a clinical pharmacist to an Opioid Stewardship Program Coordinator position in Chief Medical Office

UK HealthCare Timeline for Change



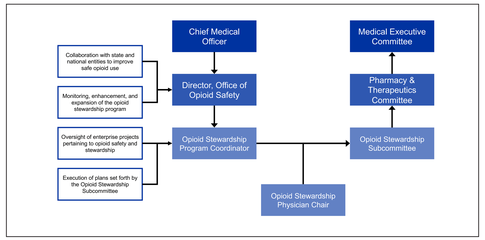
KORE=Kentucky Opioid Response Effort; KY SOS=Kentucky Statewide Opioid Stewardship Initiative; MCCAN=Markey Cancer Center Affiliate Network

Description of the Program *(continued)*

- Goals for change
  - Understand hospital culture and patient expectations of pain management
  - Increase prescriber knowledge regarding safe analgesia provision
  - Improve non-pharmacologic and non-opioid pharmacologic analgesic use
  - Ensure safe use of opioids when necessary
  - Provide effective pain management with less patient harm
- Meaningful metrics chosen
  - General opioid use
    - Daily morphine milligram equivalent (MME)
    - Opioid-free days
    - Hospitalizations
  - High risk use
    - Concomitant benzodiazepines
    - Doses over 50 or 90 MME
    - New start opioids
  - Safety
    - Naloxone use
    - Opioid-related adverse drug events
  - Pain control, aggregate numeric rating scale (NRS) pain scores

Current Program Overview

Opioid Stewardship Organizational Structure



Lessons Learned

- Prescribers recognize the role and responsibility of the healthcare system to address the opioid crisis and are largely willing to change, but need guidance and encouragement
- Provide support—not restrictions—to prescribers, engage nursing, and tackle low-hanging fruit early (e.g., motivated providers or patient populations, acute pain)
- Align with and leverage local, state, and national opioid prescribing efforts to affect change

Experience with the Program

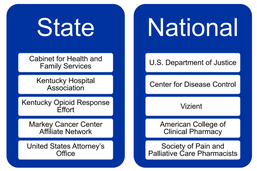
Selected Enterprise Metrics after Implementation

Metric	July 2016 (N=5,584)	May 2019 (N=6,320)	p value
Median Daily MME per Patient	30.0 (15.0-60.0)	22.5 (10.0-45.0)	<0.001
Opioid-Free Patient Days*	56.4%	63.0%	<0.001
High-Dose Patient Days*	5.1%	2.4%	<0.001
Weighted Average Pain Score	3.1/10	2.8/10	<0.001
Patients Discharged with New Opioid Prescriptions	17.8%	6.7%	<0.001
Patients Discharged with New Opioid/BZD Combination Prescriptions	1.4%	0.4%	<0.001
Patients Discharged with Naloxone Prescription	1.4%	2.9%	<0.001
Patients on Opioids/BZDs Discharged with Naloxone	5 (11.6%)	21 (23.1%)	0.161
Patients Receiving >50MME Discharged with Naloxone	20 (16.3%)	67 (28.6%)	0.014
Patients with a History of OUD Receiving Naloxone	5 (11.6%)	32 (35.2%)	0.004

MME=morphine milligram equivalent
BZD=benzodiazepine
OUD=opioid use disorder
*opioid administration based on documentation of dose administration in medication administration record

- Increased visibility of positive pharmacist impact on health outcomes and quality
  - Healthcare setting enterprise-wide
  - Statewide
  - Nationwide
- Facilitated evaluation of expanded pharmacist services
  - Palliative care
  - Acute pain
  - Behavioral health including substance use disorders
- Developed pharmacist relationships with state-wide physician boards and hospital associations
  - Established pharmacist-led opioid stewardship programs in 3 large healthcare settings in 6 month period
- Supported pharmacists as content experts with Vizient,
  - Local pharmacists co-leading multiple national efforts
- Advanced pharmacy within the American College of Surgeons
  - Appointment of pharmacist to co-lead Committee on Trauma regarding acute pain management guidelines
- Increased visibility of pharmacists nationally in nontraditional settings

Collaborations with UK Opioid Safety



Discussion/Conclusion

- UK HealthCare Opioid Stewardship Program model has yielded measurable results in combatting the opioid crisis without sacrificing analgesia
- At the highest levels of our institution, throughout Kentucky, and across the country, the program has
  - Increased recognition of the value of pharmacists
  - Facilitated the expansion of opioid stewardship programs